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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,556	03/25/2004	Shoichi Suzuki	03500.018043	4762

5514 7590 06/15/2007  
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NEW YORK, NY 10112

EXAMINER
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WANG, KENT F

ART UNIT	PAPER NUMBER
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2622

MAIL DATE	DELIVERY MODE
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06/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/808,556

**Applicant(s)**

SUZUKI ET AL.

**Examiner**

Kent Wang

**Art Unit**

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/01/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The reference listed on the disclosure statement (IDS) submitted on 06/01/2004 has been considered by the examiner (see attached PTO 1449).

### ***Drawings***

3. Figures 1A, 1B and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

6. Claims 9 and 10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 9 and 10 defines a program for executing the white balance method embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" –

Guidelines Annex IV). That is, the scope of the presently claimed a program for executing the white balance method can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium encoded with a computer program" or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-6, and 8-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi, US 2003/0090750 in view of Shimizu, US 6,862,039.

Regarding claim 1, Takahashi discloses an image pickup device (a digital still camera, DSC; [0052]) comprising:

- an image device (a typical CCD sensor, see Fig 3 and [0057]);
- a white balance processing unit (white balance correction apparatus 10) that specifies a color temperature of a light source on the basis of an output signal of the image device (the color temperature of the photographing light source

is completed by the light source color temperature computation section 24) , and conducts white balance processing in accordance with a white balance coefficient that corresponds to the specified color temperature of the light source (the coefficient optimization section 22 optimizes the coefficients) (see [0108]).

Takahashi does not explicitly disclose an instruction unit that instructs a given chromatic color area on a photography screen.

Shimizu discloses an instruction unit that instructs a given chromatic color area on a photography screen (pre-setting and one-push white balance wherein a particular area is designated in a captured image screen) (see Fig 1, Fig 2, col. 2, lines 6-10, and col. 4, lines 32-56).

Takahashi and Shimizu are analogous art because they are from the same field of endeavor of white balance adjustment of an imaging pickup device. At the time of the invention, it would have been obvious to a person of the ordinary skill in the art to use Shimizu's instruction unit in Takahashi's method and apparatus for correcting white balance. The suggestion/motivation would have been to enable the operator to finely adjust the color tone of a subject (see col.1, line 61 to col. 2 line 10 of Shimizu).

Regarding claim 8, Takahashi discloses a white balance processing method comprising:

- specifying a color temperature of a light source on the basis of an image signal within the instructed area (the light source color temperature

- computation section 24 converts the image signals by using the coefficients optimized in the coefficient optimization section 22) ([0082]); and
- conducting white balance processing in accordance with a white balance coefficient that corresponds to the specified color temperature of the light source (computing a color temperature of a light source in order to improve white balance correction of an image photographed with strobe light involving such light sources of different types) ([0086]).

Takahashi does not explicitly disclose instructing a display device displays an image and a given chromatic color area of the image on the display device.

Shimizu discloses instructing a display device displays an image and a given chromatic color area of the image on the display device (step S108 of Fig 3) (see Fig 3 and col. 4, lines 32-56).

Regarding claim 2, Takahashi discloses the white balance processing unit (10) calculates color evaluated values on the basis of the output signal of the image device (CCD sensor) within the instructed area, and specifies the color temperature of the light source on the basis of a color evaluated value that is judged to be included in a predetermined chromatic color detection area among the calculated color evaluated values (the light source color temperature computation section 24 computes the estimated value of the color temperature of the photographing light source from the average color temperature of the group of skin color candidate pixels) ([0099] and [0100]) (also see [0018] for a predetermined chromatic color detection area).

Regarding claim 3, Takahashi discloses an image pickup device wherein the chromatic color is a skin color ([0020] and [0076]).

Regarding claim 4, Takahashi discloses the chromatic color detection area is generated on the basis of a difference between a color evaluated value of a predetermined skin color which corresponds to the color temperature of the photography light source and a color evaluated value of an actually photographed skin color (the skin color candidate detection section 18 compares the image signals by predetermined coefficients with the blackbody locus of skin color to detect data considered to have a color in the vicinity of the skin color) ([0098]).

Regarding claim 5, Takahashi as modified by Shimizu discloses an instruction unit comprises one of a touch panel (monitor 30) and a visual line input (function selection button 36 and decision button 38) (see col. 3, lines 29-33 and col. 4, lines 32-55).

Regarding claim 6, Takahashi discloses an image pickup device wherein the chromatic color detection area is selected from a plurality of areas (obtaining a group of skin color candidate pixels by using the optimized coefficients and dividing the group of skin color candidate pixels into a plurality of subgroups of skin color candidate pixels) ([0025]).

Regarding claim 9 and 10, Takahashi discloses a program for executing the white balance processing method as claimed in claim 8 and a storage medium that stores the program as claimed in claim 9 ([0156]).



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9. Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi in view of Shimizu, and further in view of Wheeler, US 7,133,070.

Regarding claim 7, Takahashi as modified by Shimizu does not explicitly disclose the chromatic color detection area is selected on the basis of an input language that is inputted to the image pickup device by a photographer.

Wheeler discloses an input language (voice-actuated input) that is inputted to the image pickup device (a digital camera 300) by a photographer (the photofinisher) (see col. 13, line 51 to col. 14, line 6 and figure 8).

Takahashi, Shimizu and Wheeler are analogous art because they are from the same field of endeavor for white balance processing in an image pickup device. At the time of the invention, it would have been obvious to a person of the ordinary skill in the art to use Wheeler's voice-actuated input in Takahashi's device for image processing. The suggestion/motivation would have been to enable the instruction unit to accept instructions by a variety of means.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Hoshuyama (US 6,906,744) discloses an electronic camera is provided with an image-capturing device for photographing that captures an image of a subject image passed through a taking lens and outputs image data, an image-capturing device for scene analysis that is provided at a position

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- conjugate with the position of the image-capturing device for photographing relative to the taking lens and outputs scene analysis image data by receiving the light of the subject image and a scene detection processing circuit that determines a white balance adjustment gains base upon the scene analysis image data output by the analytical image-capturing device.
- Nakayama et al. (US 2002/0027601) disclose an image pickup apparatus such as a video camera has the capability of automatic white balance control whereby the white balance is quickly adjusted for any object even just after an operator has turned on a power supply.
  - Hyodo et al. (US 6,952,225) disclose a method and apparatus to provide an automatic white balance adjustment method and apparatus, which correctly determine the type of a light source, and adjusts the white balance according to the determined type of the light source.

### ***Inquiries***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kent Wang whose telephone number is 571-270-1703. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc Yen Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-270-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kent Wang

8 June 2007

  
LIN YE  
PRIMARY PATENT EXAMINER